

REMARKS

Claims 71, 72 and 82-101 are pending in the present application. Claims 71 and 96-101 are hereby amended. Upon entry of this amendment, twenty two (22) claims (i.e., claims 71-72 and 82-101) will be pending, of which eight (8) are independent (i.e., claims 71, 82 and 96-101). No new matter will be incorporated into the present application by entry of this Amendment. The Patent Office is hereby authorized and requested to charge any additional fees that may be required for entry of this Amendment to Deposit Account No. 061910.

Applicant's representatives would like to thank Examiner Blackwell-Rudasil for extending them the courtesy of a personal interview on May 18, 2004. This Amendment is being filed together with a recordation of the substance of the interview, in accordance with MPEP 713.04.

Applicant wishes to note that the Examiner is also examining related co-pending patent application 10/009,284, entitled "Hydrophilic Surfaces Carrying Temporary Protective Covers".

In the Office Action mailed April 13, 2004, the Examiner made the outstanding restriction requirement final, noted that Applicant will provide a new oath or declaration, rejected claims 82-101 under 35 U.S.C. 103(a) as being obvious over United States Patent No. 5,302,449 (Eby et al.) in view of United States Patent Application Publication No. 2002/0176988 (Medwick et al.), and rejected claims 71-72 under 35 U.S.C. 103(a) as being obvious over United States Patent No. 4,952,430 (Bowser et al.) in view of Medwick et al. further in view of United States Patent No. 5,020,288 (Swensen). Applicant respectfully disagrees with each of these rejections, with the Examiner's characterization of the invention, and with the Examiner's characterization of the cited art. Applicant requests reconsideration of each rejection in view of the present remarks and/or amendments.

Eby teaches a particular low-emissivity coating which in some embodiments includes as its outermost film an exceptionally thin abrasion-resistant overcoat comprising a metal oxide, such as zinc oxide, at an optical thickness of between about 10Å and about 40Å. For a metal oxide overcoat having a refractive index of about 2, this equates to a physical thickness of between about 5Å and about 20Å. (See Eby, column 8, lines 7-19).

Medwick teaches two different types of removable coatings. (See Medwick, page 7, paragraph [0055], lines 1-8). The first type is a polymeric coating. The second type is a carbon-containing coating. Medwick expressly indicates that both types of coatings would not survive

glass tempering. With respect to the removable polymeric coating, Medwick states “Typical tempering ovens operate in the range of about 1200° F.-1300° F (648° C.-704° C.). At these temperatures, the polymeric protective coating 16 discussed above should thermally decompose or burn off the substrate 12.” (See Medwick, page 7, paragraph [0053]). With respect to the removable carbon-containing coating, Medwick states “During tempering, the carbon-containing protective coating 16 would be oxidized and removed from the article 10.” (See Medwick, page 8, paragraph [0057]).


Applicant considers that the original claims define patentably over any combination of the cited art. In the interest of obtaining allowable claims at the earliest possible date, however, the present Amendment is being filed to focus on certain preferred embodiments of Applicant’s invention. The amended claims call for a substrate having a low-emissivity coating on one side and a temporary protective cover on the other side, wherein the temporary protective cover is durable to glass tempering. Applicant submits that the structure of these embodiments is clearly distinguishable from any structure that would result from combining Eby, Medwick, Bowser, and/or Swensen.

As noted above, Eby shows a low-emissivity coating. Low-emissivity coatings are not well suited for use on the exposed external surfaces of a window. Rather, they are generally used on the protected internal surfaces of an IG unit. This is true, in particular, for the low-emissivity coatings taught in the Eby patent. These coatings would not be used on the unprotected external surfaces of an IG unit. Rather, they would be used on one of the protected interior surfaces of an IG unit. Even if the low-emissivity coating of Eby were provided on the internal surface of a substrate, and if one of the protective coatings of Medwick were provided on the external surface of the substrate, the resulting structure would be distinguishable from the present claims. Neither of the coating types taught by Medwick would survive glass tempering. Rather, Medwick teaches removable organic coatings that would burn off during tempering. Thus, combining Eby and Medwick would not yield a substrate having a low-emissivity coating on one side and a temporary protective cover on the other side, where the temporary protective cover is durable to glass tempering. Further, the thin inorganic overcoat of Eby is simply the outermost layer of a low-emissivity film stack. It would not be obvious to take this outermost layer from the Eby low-emissivity film stack and use it to replace the removable organic covering that Medwick teaches over an exterior surface. The teachings of Bowser and Swensen

do not make up for these limitations in Eby and Medwick. Therefore, Applicant submits that the amended claims are novel and non-obvious over the cited art.

In particular, Applicant submits that claims 71, 72 and 82-101 are in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance the prosecution of this case.

Respectfully submitted,



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